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The Western.

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A COURSE OF STUDY FROM PRIMARY SCHOOL TO UNIVERSITY.

[The following Report was read at the General Session of the National Educational Association, at Baltimore, July 12th, 1876, by WM. T. HARRIS, Chairman of a Committee appointed at the Annual Meeting in Detroit, to consider and report a Course of Study. This Report is to be made the subject of a special discussion at the next Annual Meeting.—ED.]

To the National Educational Association :

THE undersigned, appointed a committee to report a Course of Study for all grades of Schools, from the Primary School to the University, beg leave to submit herewith the results of their deliberations on this important theme.

At the outset, your Committee found it necessary to investigate a number of difficult questions, all of which had a practical bearing upon the definition of a Course of Study, its extent, and the relations of its several parts. In most instances these questions were suggested by real collisions shown to exist between the views held by the expounders of the various educational systems established in this country.

A brief review of these questions is essential as a preliminary introduction to the grounds which have influenced your committee in the recommendations which they venture to make.

1. The first question relates to the proper beginning of a course of study: at what age should the pupil be admitted to school? Upon this depends, in a large measure, the character of the studies and the temper of the discipline in the primary school. It is important here to consider the modifying effects of climate and the nature of parental training at home. In the Northern sections of the country, children may attend school one or two years earlier than in the Southern sections. A child may be safely placed in school at the age of five, or even less in the cooler climates, and assigned the ordinary tasks in reading and arithmetic at once, while in warm climates he must begin school at six or seven years of age, or if earlier, his tasks must be of a less severe character and not so prolonged.

To some of your committee the Kindergarten has commended itself as a desirable beginning of the primary course. At the age of five years, possibly at four, the child may be brought under its training. The principal objects aimed at in the Kindergarten course of instruction are—(1.) Skill in the recognition and production of forms. The hand and eye are disciplined in the most effective manner by the several occupations of cutting out shapes in paper, weaving patterns in different colors, perforating card-board and working pictures in colored threads, construction of geometrical and other figures by means of sticks and softened peas, modelling of designs in clay, ruling paper, and drawing symmetrical figures. (2.) The theoretical knowledge of form and number, is trained by the use of blocks representing the elementary geometrical solids; counting, the elementary rules of arithmetic, the use of fractions, are taught by means of these blocks. (3.) Besides this, the child is taught valuable lessons in manners. He eats his lunch at the table spread in a proper manner, and learns neatness, cleanliness and the conventional etiquette

that marks polite behavior at meals. (4.) In the games which are played, the imagination is exercised in a lively manner, and the healthful training of the body is secured. The session of the Kindergarten usually lasts for about three hours per day, and may continue for one or two or three years according to the age of the pupil upon entrance. It is to be remarked that the element of play is not so prominent a characteristic of the Kindergarten as is claimed by some of its advocates. Moreover, the nurture of the child's individuality and originality of character, which is obtained in play, is not to be expected from the play that is permitted in the Kindergarten, so much as in the untrammelled exercise of his faculties when outside of the school-room. Play involves a negative exercise of the will in caprice and destructiveness that is essential, no doubt, to the development of the feeling of independence and original power which forms the basis of character. But the school must always direct the pupil's efforts into special rational channels of activity, and hence act as a restraining influence upon the untamed will. The Kindergarten restrains, though in the gentlest manner possible. It furnishes a training nearest approaching that of the family; and is the proper transition from family to school. A year spent in cultivating manual skill, and in the acquirement of a familiar knowledge of geometrical form and numerical computation, as well as a training in polite habits and usages at so early an age, must be a powerful influence in molding the future life of the child.

2. Where the Kindergarten does not precede the ordinary course of primary instruction, the first studies of the course are reading, writing and arithmetic.

The second difficult question that met your committee in their investigation was to determine the precise value of these and other elementary studies both as regards discipline of

mind obtained in their acquirement, and their usefulness to the individual in gaining further knowledge. It was necessary to compare one branch of study with another. While some educational writers contend that the art of drawing, or oral lessons in natural science are of more real importance than reading and writing, or arithmetic, others contend that the latter studies are of a fundamental character, altogether unique and not to be compared with the former for the reason that these studies (reading and arithmetic) are of universal use and value, while such studies as drawing and the natural sciences are special in their character. The arts of reading and writing enable their possessor to participate in the treasured wisdom of the race. Without them he can gain knowledge only through his own senses and the oral tradition of his companions. By the aid of reading and writing he can avail himself of the senses of all mankind in all ages of the world and transmit his own contribution to the race in turn. By arithmetic he is able to measure the quantity of the world about him, at least so far as he can reduce it to number. Deprive man of the power of counting and calculating and the world of things recedes into a vague and uncertain relation to him so that his power over it diminishes to zero. With numerical calculation he can divide and conquer it—he can rule matter by spiritual might; without this art his relation to the world is that of the savage to his fetish.

In whatever form this question has been viewed by your committee, the paramount value of reading, writing and arithmetic over all other branches in the course of study has been manifest.

But this has not fully decided the question. The most useful studies do not of necessity altogether exclude less useful studies.

3. Here, accordingly, your committee met another difficulty,

to-wit: how to decide the amount of prominence to be given to industrial branches in comparison with those chiefly productive of theoretical culture.

That which seems to lie nearest to the realm of usefulness to the individual is his special trade or vocation. His culture-studies are not so directly useful, but are useful at more points in his life and for a greater period of time. In late years we have seen the whole course of study challenged. The primary school has been called upon to fit the pupil for the actual demands of life. The college and university have been asked to dispense with certain of their disciplinary studies and adopt others of greater immediate usefulness. Less Latin and Greek and more Science of Nature and Man, has been the demand. The Course of Study has received great modifications; the number of elective branches has been increased. Still the proper adjustment between culture-studies and practical studies does not seem to have been found. Now that education, as an element of national strength, has excited so much attention and become the object of so frequent legislation, we are the more perplexed by this problem. Indeed there are many problems here.

4. The question of public and private schools meets us first. On the one hand it is contended in the interest of productive industry, that the public schools, being for the masses who are destined to fill the ranks of common laborers, should give a semi-technical education, and avoid purely disciplinary studies. The latter should be reserved (it is thought) for academies and preparatory schools founded by private enterprise and open to such of the community as can afford to patronize them. This means a division in the course of study—one branch of it tending towards the arts and trades—the education of the laboring classes; the other branch tending towards high culture—"a liberal education," as it is called.

This important question, therefore, met your committee in this shape: Is the best course of study for the future common laborer, a part or portion of the longer course of study designed to educate the professional man? Is the complete course of study the same for culture and business and the professions, so that whatever section of it be cut off from the beginning, furnishes the best course up to that point, whether regarded as preparatory to a continuation of the course of study, or as a completed course fitting one for business? To settle this point it was essential to consider in detail the nature and effects of such differences in the course of study as had come to exist in our educational systems, and especially the tendency to separate the preparatory course for colleges and universities from that pursued in the common schools.

The course of study as originally planned for our colleges was a continuation of that in the so-called "Grammar School" in which Latin grammar was the most important branch of the curriculum. The common school course was very meagre, and that of the grammar school and college was well enough as a continuation of it. At that time very little development had taken place in the sciences of nature and man; English literature had not yet become a great power among the people; the printed page in the form of the newspaper and magazine had not yet opened to the individual the great possibilities of continuing his theoretic education. What was then a "liberal education" is inferior to a common education now. Although higher education demands only the same disciplinary studies as preparatory to it, that it did formerly, merely increasing the amount, and has recognized the modern growth of literature and science and history by additions to the end of its course, in the common school so much has been added to the disciplinary studies as to completely change the course. The branches which initiate the pupil into the sciences of

man and nature are better and better provided for year by year. The curriculum is continually modified so as to adapt it more fully to the wants of the individual in this epoch. But the higher education has yielded far less to the demands of the age. It has succeeded in repelling the collateral and information-giving studies from its preparatory course, and it admits them only in the form of a supplement at the close of the course.*

* The Forty-Eighth annual report of the President of Harvard College announced certain changes in the requirements for admission to that university which indicated very clearly a perception of the difficulty herein described. A better preparation in English literature, natural science, and modern languages (French or German) was required. Upon this the report remarks as follows :

“ In all changes in the preparatory course of study which have been here set forth, the single aim of the Faculty has been to make that course correspond more nearly with the best possible course of study for young men, up to an average age of eighteen, who propose to pursue non-professional studies for four years more. As the learning given in American colleges has been predominantly classical and mathematical, it is not surprising that the proficiency of a candidate in Classics and in Mathematics has been the point chiefly considered in examinations for admission. That teachers and pupils in preparatory schools should direct their efforts mainly to meeting these specific demands of the colleges, and should subordinate the intrinsic importance of studies to their serviceableness in securing admission to college, is the only result that could be expected. Neither teacher nor pupil could be much blamed, for instance, for practically setting the writing of good Latin above the writing of good English. It is plain that the only remedy for this grave evil is for the colleges to show by the nature of their admission examinations that they will not accept the rudiments of *scholarship* as amends for deficiencies in the rudiments of *education*. The colleges, as the representatives of the value of the study of the Classics, should be especially careful not to give plausibility by any act or neglect of theirs to the groundless assumption that the discipline of mind secured by the preliminary classical training must be purchased by the sacrifice of some knowledge which a well-educated young man of eighteen ought to possess. Co-operation on the part of the leading colleges is much needed in enforcing upon teachers, and in enabling them to enforce upon their pupils, the necessity of thorough training in all the elements of a sound education. As soon as those colleges unite in demanding of candidates for admission a thoroughly good training in English no less than in classical subjects, the schools which feed the colleges will in turn be able to exact from the lower schools an efficiency which they now greatly lack. The service which American colleges could thus indirectly render to American education it is difficult to overestimate. Were a good degree of proficiency in a *well-constructed course of English studies* strictly enforced as a condition of admission into our leading colleges, the quality of education received by all pupils in all schools directly or remotely affected by such action would be sensibly improved. Hitherto a too exclusive concern for proper preliminary training in the Classics and Mathematics has cut off the higher institutions for education in this country from a part of that influence upon the lower which it is both their interest and their duty to exercise.”

The course of the common school tends to take the pupil through the elements of the collateral studies before his preparation for college, while the course of the college and its special feeders, the academies and classical schools, does not reach those studies until after five to seven years' apprenticeship in the purely disciplinary studies is completed.

This difference appears most marked in the course of the public high school, as contrasted with that of the special preparatory schools. In the district school are taught reading, writing, arithmetic, geography, grammar and history of the United States. In the course of study in the public high school, we find Latin and Greek, French and German, algebra, geometry, natural philosophy, physical geography, physiology, universal history, English literature and rhetorical work. But a preparation for college usually omits all except the Latin, Greek, and mathematics. Hence the public high school is obliged to provide for a classical course and a general course, if it would continue the common school course and at the same time prepare its pupils for college. The influence of higher education upon the lower is to force the latter to drop its collateral and information-giving studies.

Meanwhile the demand of the age upon the college to curtail its disciplinary and culture studies, and to give more prominence to the natural sciences is met only by the increase of these branches in the latter part of the course, as well as by the establishment of scientific schools separate from the regular philosophical course; when these separate schools require as a condition of admission to them the completion of the regular college course, they do not fulfil in a direct manner the popular demand; when they admit pupils without such preparation, they omit the culture and discipline which they claim to be essential to success in the pursuit of higher science.

5. In view of these facts your committee proceed next to consider the question of classical culture. Are Latin and Greek essential to a course of study that shall give thorough discipline to the powers of the mind? What special advantage to culture is derived from the study of Latin and Greek over that derived from the study of Modern Languages—say French and German? That these ancient languages have no advantage as regards their form or capability of expression—one may convince himself by comparison. But when it is remembered that English-speaking peoples derive from a Teutonic source only those words expressive of special and familiar relations and ideas, while for all the fine shades of thought and generalization they resort to the Latin and Greek vocabulary, it will easily be seen how important is a direct knowledge of those tongues to us if we would understand readily the language of thought, and express with ease the results of reflection and generalization.

The scientific method prevailing in our time tells us that to know a subject properly we must study it in its history. We must be acquainted with its embryology and growth. In this insight we have also a clue to the nature of the much prized disciplinary value of classic study. The classics of a people include the earlier writings belonging to the period of the evolution of its civilization. A study of its classics places one in possession of the seeds and elementary phases which have expanded and grown into its later life. The civilization not only of the Anglo-Saxon people, but of the Romanic, Teutonic, Slavonic and Celtic peoples of Europe is a Roman and Greek civilization. Greece and Rome originated the stock of ideas that form the basis of our institutions. The Greek mind explored the domain of theoretic and æsthetic culture, and science draws its categories to-day from the Greek language; while art points to Greek literature and Greek sculpture and

architecture for perfect models. What culture we have in these directions cannot be well acquired by the individual nor fully comprehended by him without recourse to its original fountains. Rome furnished the organizing forms of our civilization; and our jurisprudence and legislation still pronounce their edicts in Roman words; and the form of our institutions in which we live and move and have our being as a civil community—as a State, a municipality, a corporation, a free citizen endowed with rights—is Roman. To know ourselves, to realize our past history, and to make alive within ourselves the consciousness of the development of our civilization, we must for a period come into close contact with the literature in which Greece and Rome portrayed their national life. Language is the clothing of the ideas of a people, a garb woven of poetic phantasy and prose reflection. In it we reach the germinal cell-growth of the ideas of a people. In this respect the study of Latin and Greek furnishes to a European or an American a far higher means of culture than does any modern language. No one modern language is an embryonic type of another, nor does its literature portray the embryonic form of the civilization of another people, even though it may be an “arrested development” of some type of civilization. To study the embryology of the butterfly, we must begin with the caterpillar and not with the house-fly. So to understand the frog we must study the tadpole rather than the turtle. French and German have their own evolution and their own embryology.

6. Pursuing this thought we come to inquire why it is that language in general should furnish so large a portion of the course of study. The spirit of protest demands: “why not *things* rather than *words*?” And yet education goes on dealing with *words*! If thought—scientific thought—be the end of culture and education, it is not strange after all that so much is

made of the word that expresses it. Things are only transitory phases of processes in nature—the temporary equilibria in the great movement of forces. Science seizes the eternal laws or forms of the process itself and thus deals with what has more validity than the mere things. Words express not things alone but also forces—processes. The verification of the word is therefore not through things alone but through the synthetic activity of thought. Words stand for more than mere things.

Looked at as an object of knowledge the world is two-fold; (a) the world of man—including his realizations in art and literature, in his political and social institutions, in his science and history; (b) the world of nature including the inorganic aspect, and the organic one of plant and animal. In the study of language we find the three-fold world of man as theoretical, practical and æsthetic. If we go so far as to call the world of man the most important of studies for man, we shall certainly call language the most important study of the course—the one which gives most clearness of insight to the mind and the most discipline to its powers. But while the perfection of man is the object and end of civilization and consequently of all other culture and education, on the other hand nature is the instrumentality by which this end is achieved. To the savage man nature is master and tyrant; to civilized man nature is servant and thrall. To omit the science of nature from any course of study, is to do wrong to the supremacy which man holds by reason of his empire over nature. To slight the science of language in a course of study, is to insult the object of all study itself.

7. The final difficulty which your committee encountered in their investigation is the one of the natural and proper order of development of the topics of the course of study in the mind itself. Such questions were met as these: “Why not get dis-

cipline of mind first* before taking up collateral branches, such as the natural sciences, the national literature and history?" "These topics involve the highest reach of the mind to be understood properly." Or the counter position: "Why are not the natural sciences, history and literature as valuable discipline studies as Latin, Greek and mathematics? and if so, why not begin with them in a course of study?"

Upon consideration of this question of the order of topics, your committee are of opinion that each one of the several fields of the objective world of man and nature should be represented at each point in the course of study. Nature in its organic and inorganic forms, mind in its theoretical, practical and æsthetic forms. To those who object to collateral and information studies side by side with the discipline studies it may be said that they lay emphasis on the inorganic phase of nature by the exclusive study of mathematics and physics and on the theoretical phase of mind to the exclusion of the practical and æsthetic phases by the too exclusive study of grammatical forms and constructions.

To those who object to the study of topics that are too difficult to be understood in the most comprehensive sense, until the close of one's disciplinary course it is sufficient to point out the fact that every subject has its abstruse side and that no phase of natural or of human history can be completely comprehended except in and through the world itself. Even the disciplinary studies themselves treat of topics that are not fully explicable until one has mastered the other studies.

The child seizes whatever subject he studies more vaguely than the adult. His active phantasy is his chief organ. Hence the descriptive phases of science can and should be learned early. In secondary education the classifications and relations come properly to be considered—reflection is then

the chief mental activity. In the highest phase of education objects are studied as organic wholes—each individual is seen through the perspective of its history.

Without previous familiar acquaintance with a subject obtained by studying its first or descriptive phases, one gets very little insight into the philosophy of it, even though he listens to the exposition of a Huxley or Agassiz.

That mathematics and the classic languages are justly regarded as disciplinary studies in a sense that will not apply to the other studies, is pretty evident from the reasons already given. Discipline is the process by which the will is purified from the sway of appetite and caprice. In his infantile state, as child or savage, man's will is implicit—not separate from his desires or appetites. A child or savage is a creature of impulse. To become rational he must substitute principle for caprice; moral forms for impulses. The training requisite to emancipate the will and elevate it from the stage of impulse to that of moral activity, must needs possess the following essential characteristics: (a) It must occupy the pupil with what is remote from the interests of his every-day life; self-alienation is necessary to self-knowledge; in order to see our own dwelling in its relations to surrounding objects it is necessary to go out of it and stand at some distance. The atmosphere of the classic people of Greece and Rome furnishes the broad contrast to our every-day life which enables us to discriminate sharply the motives which unite to form our impulses. (b) Inasmuch as the civilization of those classic peoples is the embryonic form of our own, as has already been pointed out, the student of the classics has the advantage of seeing the universal, or regulative, forms of his life (the laws, institutions, and usages which define his status as a human being,) in their special forms and applications. He learns more readily the universal by studying it, at first as a typi-

cal instance. The invisible cloak of forms wrapped about his life—invisible because of its general or abstract nature—thus becomes visible to him and he acquires the ability to separate his deed from his impulse by the insertion of general motives. Reflection takes the place of instinct and caprice. By studying that which has no direct and obvious relation to his immediate interests but which is allied to the general forms of his rational activity, the youth obtains breadth and perspective of practical insight. The disciplined mind makes its purpose a general one and does not allow caprice (likes and dislikes, weariness of the body, curiosity, love of ease or amusement,) to hold sway. Mathematics as the science of the general relations of time and space—the conditions under which the existence of nature is possible, has the same relation to man's physical existence as classic study has to his humane culture.

This mental discipline is not a matter of perseverance and industry simply, so that whoever studies any subject thoroughly will get the same amount of discipline as another, but the object studied must stand related to the student's general and rational forms of life and thought.

Assuming the division already indicated, our course of study will fall under five sub-divisions, each of which must be represented at every stage of progress. A careful survey of this ideal standard discovers the fact that with the exception of the divergence already mentioned between preparatory schools and the public high schools, there is a close conformity to the educational system generally adopted in the country. Were the college or university to require for admission a knowledge of the elements of natural philosophy and physical geography (the former a compend of physics and the latter of natural history), universal history, and English literature, and slightly less of Latin and Greek, it would re-

move the necessity of two courses of study in the high school.

The five sub-divisions are :

I. Inorganic Nature, treated in (a) mathematics, the science of the general form of nature as existing in time and space, and hence as quantitative; (b) Physics, molar and molecular, including the science of the contents of nature in their quantitative aspect.

II. Organic Nature or Cyclic Processes, treated in Natural History and in all natural sciences which have for their object a cyclical process, whether that of life or not; hence, astronomy, meteorology, geology, botany and zoology, and kindred sciences.

III. Theoretical Man or Intellect, treated indirectly in (a) Philology or the science of the instrument invented for the reception, preservation and communication of thought; treated directly in (b) Philosophy which investigates the universal and necessary conditions of existence or the forms of the mind that appear in logic, psychology, ontology, and other spheres more concrete. The study of grammar is the propædæutic to this field.

IV. Practical Man or Will treated in (a) Civil History, which portrays man's progress in realizing forms of freedom by means of political organization; (b) Social and Political Science which investigates the evolution of institutions of civil society and their logical basis.

V. Æsthetical Man, or Phantasy, as developed in the Fine Arts, and especially in Literature as the symbolic portrayal of man to himself, the collisions of his real world with his ideal, and the reconciliation of the two.

In mapping out the provinces which shall be investigated, only a small portion of the work of preparing a course of study has been accomplished. It remains to select those branches of study which are to be pursued continuously from

year to year throughout the course, and likewise to decide the amount of time to be given to the other branches, as well as their exact order in the course. In this difficult and delicate part of the task it becomes evident that within certain limits very much freedom may be allowed to the teacher and pupil, and in fact must be allowed. It is necessary to have each one of the five departments well represented in the course. But a choice may be made, for example, in the department of the study of organic nature, between botany, zoology, physiology, and geology, each one of these studies being a fair type of the rest as regards effect on the mind in culture or discipline. It must not be forgotten moreover that the age of pupils and the amount and quality of previous preparation will determine whether the course shall be very full or whether it shall embrace only a few of the representative branches; whether the special branches shall be continued for half a year each or for a whole year.

In the more important branches there should be no option left to the pupil in the high school, for example, all should be required to take Latin, Algebra and Geometry, Universal History, Constitution of the United States, History of English Literature, Rhetoricals, Natural Philosophy and Physical Geography.

Omitting the phase of physical training, except in so far as the art of drawing secures it in the form of a culture of the hand and eye—a general propædæutic of manual skill—and not including the ground covered by the Kindergarten which would precede, or that of the special trades or professions which would succeed this general course, your committee present the following tabulated scheme for a general course of study from primary school to university.

DISTRICT OR COMMON SCHOOL.

TOPICS RELATING TO NATURE.

Inorganic.—Arithmetic, Oral Lessons in Natural Philosophy.

Organic or Cyclic.—Geography, Oral Lessons in Natural History.

TOPICS RELATING TO MAN; OR "THE HUMANITIES."

Theoretical (Intellect).—Grammar, (Reading, Writing, Parsing and Analyzing).

Practical (Will).—History. (Of United States.)

Æsthetical (Feeling and Phantasy).—Reading Selections from English and American Literature. Drawing.

HIGH SCHOOL OR PREPARATORY SCHOOL.

TOPICS RELATING TO NATURE.

Inorganic. — Algebra, Geometry, Plane Trigonometry, Analytical Geometry, Natural Philosophy, Chemistry.

Organic or Cyclic.—Physical Geography. Astronomy (Descriptive), Botany or Zoology, Physiology.

TOPICS RELATING TO MAN; OR "THE HUMANITIES."

Theoretical (Intellect). — Latin, Greek, French or German, Mental and Moral Philosophy.

Practical (Will).—History (Universal), Constitution of the United States.

Æsthetical (Feeling and Phantasy).—History of English Literature, Shakespeare or some standard author, (one or more whole works read). Rhetoricals (Declamation and Composition). Drawing.

COLLEGE OR UNIVERSITY.

TOPICS RELATING TO NATURE.

Inorganic.—Analytical Geometry, Spherical Trigonometry, Differential and Integral Calculus, Physics, Chemistry, Astronomy, (Etc., Elective.)

Organic or Cyclic.—Anatomy and Physiology, Botany, Zoology, Meteorology, Geology, Ethnology, (Etc., Elective).

TOPICS RELATING TO MAN; OR "THE HUMANITIES."

Theoretical (Intellect).—Latin, Greek, French or German, Comparative Philology, Logic, History of Philosophy, Plato or Aristotle, Kant or Hegel, (or a representative of ancient philosophy and also one of modern philosophy).

Practical (Will).—Philosophy of History, Political Economy and Sociology, Civil and Common Law, Constitutional History, Natural Theology and Philosophy of Religion.

Æsthetical (Feeling and Phantasy).—Philosophy of Art, History of Literature, Rhetoric. The Great Masters compared in some of their greatest works: Homer, Sophocles, Dante, Shakespeare, Goethe, Phidias, Praxiteles, Skopas, Michael Angelo, Raphael, Mozart, Beethoven, &c.

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REPORT
ON A
DEVELOPING
SCHOOL,
AND
SCHOOL-SHOPS,

BY A COMMITTEE APPOINTED BY THE
American Social Science Association,

AND READ AT THEIR ANNUAL MEETING

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